

## SAFETY DATA SHEETS

**This SDS packet was issued with item:**

078501470

N/A

**M S D S****Material Safety Data Sheet**

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Joliet, IL 60432-1059  
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(815) 723-4000**

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24 HOUR EMERGENCY  
TELEPHONE NUMBER  
**CALL CHEMTREC  
1-800-424-9300**

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**Formaldehyde, 37%**


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**SECTION 1 PRODUCT IDENTIFICATION**


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NAME: Formaldehyde, 37%  
EKI PRODUCT CODE: 4422, 4424  
SYNONYMS: N/A  
CAS NO: 50-0-0  
FORMULA: HCHO  
REVISION DATE: 4 August 2006

\*\*\*\*LABEL HAZARD STATEMENT AND PRECAUTIONS\*\*\*\*

DANGER. CAUSES EYE BURNS. HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES SKIN AND RESPIRATORY TRACT IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. COMBUSTIBLE LIQUID AND VAPOR. SUSPECT CANCER HAZARD. MAY CAUSE CANCER. Do not get in eyes, on skin, on clothing. Do not breathe vapor. Keep away from heat and flame. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

**SECTION 2 HAZARDOUS INGREDIENTS / EXPOSURE LIMITS**


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INGREDIENT/CAS NO -----	OSHA PEL -----	ACGIH TLV -----
Formaldehyde/50-00-0	0.75 ppm TWA 2 ppm STEL	0.3 ppm CEIL
Methyl Alcohol/67-56-1	200 ppm TWA	200 ppm TWA Skin 250 ppm STEL Skin

Formaldehyde, 37%, and Methyl Alcohol, 11%, are subject to the reporting requirements of SARA313 and 40CFR372.

**SECTION 3 PHYSICAL / CHEMICAL CHARACTERISTICS**


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SOLUBILITY IN WATER: Miscible	BOILING POINT (C): 96
VAPOR PRESSURE (mm Hg): 1.3	VAPOR DENSITY: 1.04
SPECIFIC GRAVITY: 1.08	MELTING POINT (C): -15
EVAPORATION RATE: N/I	
APPEARANCE AND ODOR: Clear, colorless liquid, characteristic odor of formaldehyde.	

**SECTION 4 FIRE / EXPLOSION HAZARD DATA**


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FLASH POINT (C): 62  
AUTOIGNITION TEMPERATURE (C): 300  
FLAMMABLE LIMITS (%) UEL: 70 LEL: 7  
EXTINGUISHING MEDIA: Water spray, dry chemical, "alcohol" foam, CO<sub>2</sub>.



SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive-pressure mode.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Above flash point, vapor-air mixtures are explosive.

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## SECTION 5 REACTIVITY DATA

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STABILITY: Stable

CONDITIONS TO AVOID: Excessive heat, temperatures below 50F, sources of ignition.

MATERIALS TO AVOID: Oxidizers, bases.

HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO<sub>2</sub>, Formaldehyde gas.

HAZARDOUS POLYMERIZATION: Does not occur.

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## SECTION 6 HEALTH HAZARD DATA

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ROUTES OF ENTRY AND EFFECTS OF OVEREXPOSURE

INHALATION: Causes respiratory tract irritation.

SKIN CONTACT: Causes irritation.

EYE CONTACT: Causes burns.

SKIN ABSORPTION: See ingestion.

INGESTION: Causes severe G.I. disturbances. Large quantities may be fatal.

CHRONIC: May cause allergic skin reaction or dermatitis.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Skin or eye disorders, impaired liver, kidney or respiratory function.

CARCINOGENICITY: NTP-R: Reasonably anticipated to be carcinogenic to humans. IARC-1: Carcinogenic to humans.

### \*\*\*\*FIRST AID PROCEDURES\*\*\*\*

**START FIRST AID AND GET IMMEDIATE MEDICAL ATTENTION.**

EYE CONTACT: Immediately flush with plenty of water for at least 15 minutes, separating eyelids occasionally.

SKIN CONTACT: Immediately flush with plenty water for at least 15 minutes while removing contaminated garments.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen.

INGESTION: DO NOT INDUCE VOMITING. If conscious, give large quantities of water to drink.

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## SECTION 7 PRECAUTIONS FOR SAFE HANDLING AND USE

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STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED: Eliminate ignition sources and ventilate area. Absorb with inert material and containerize for disposal.

WASTE DISPOSAL METHOD: Dispose in accordance with all applicable federal, state, and local environmental regulations.

STORAGE: Store tightly closed at 15-30C.

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## SECTION 8 CONTROL MEASURES

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VENTILATION: Local

RESPIRATORY PROTECTION: If necessary, approved Formaldehyde respirator.

EYE PROTECTION: Chemical splash safety goggles and/or full face shield.

SKIN PROTECTION: Gloves, lab coat and impervious apron.

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# SAFETY DATA SHEET

Revision Date 14-Jun-2015

Version 2

## 1. IDENTIFICATION

**Product Name** Formaldehyde, 37%  
**Product Code** 4424  
**CAS No.** 50-00-0  
**Synonyms** None  
**Chemical Formula** HCHO

**Recommended Use** For laboratory, scientific, R&D or manufacturing use.

**Company** E K Industries, Inc.  
1403 Herkimer St.  
Joliet, IL 60432  
Tel. (800) 283-4244

**Emergency Telephone** Call CHEMTREC 1-800-424-9300 (EKI CCN 7453)

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Gases)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 1
Flammable liquids	Category 4

### Label elements

#### **Signal word**

Danger

#### **Hazard statements**

Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause cancer. Causes damage to organs.  
Combustible liquid



#### Precautionary Statements - Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep cool.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction.

#### Precautionary Statements - Storage

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

#### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
Water	7732-18-5	>50
Formaldehyde	50-00-0	37
Methyl alcohol	67-56-1	~11

### 4. FIRST AID MEASURES

#### Description of first aid measures

<b>Eye contact</b>	Immediately flush with plenty of water for at least 15 minutes, separating eyelids occasionally. Remove contact lenses if present. Get immediate medical attention.
<b>Skin contact</b>	Wash thoroughly with soap and water while removing contaminated garments. Get medical attention if irritation develops. Wash contaminated clothing before reuse.
<b>Inhalation</b>	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.
<b>Ingestion</b>	Do NOT induce vomiting unless instructed to do so by medical personnel. If conscious, rinse mouth and give several glasses of water to drink. Never give anything by mouth to an unconscious person. Get immediate medical attention.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Causes skin, eye and respiratory tract irritation. If swallowed, causes GI disturbances. May cause allergic skin reaction.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Water spray (fog) CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam

**Specific hazards arising from the chemical**

No information available.

**Protective equipment and precautions for firefighters**

Firefighters should wear self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode.

**NFPA** Health hazards 3 Flammability 2 Instability 0 Physical and Chemical Properties -

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas.

**Methods and material for containment and cleaning up**

**Methods for containment** Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

**Methods for cleaning up** Absorb spill with inert material, scoop up and containerize for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling** Handle in accordance with good industrial hygiene and safety practice.

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Store at 15C to 25C. Keep from freezing.

**Incompatible materials** Strong oxidizing agents. Bases.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational exposure limits**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Formaldehyde 50-00-0	Ceiling: 0.3 ppm	TWA: 0.75 ppm (vacated) TWA: 3 ppm unless specified in 1910.1048 (vacated) STEL: 10 ppm 30 min unless specified in 1910.1048 (vacated) Ceiling: 5 ppm unless specified in 1910.1048 STEL: 2 ppm see 29 CFR 1910.1048	IDLH: 20 ppm Ceiling: 0.1 ppm 15 min TWA: 0.016 ppm
Methyl alcohol 67-56-1	STEL: 250 ppm TWA: 200 ppm Skin	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m <sup>3</sup> (vacated) STEL: 250 ppm	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 325 mg/m <sup>3</sup>

		(vacated) STEL: 325 mg/m <sup>3</sup> (vacated) Skin	
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**Appropriate engineering controls**

**Engineering Controls** Emergency showers, eyewash stations, ventilation systems.

**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Tight sealing safety goggles. Face protection shield.
<b>Skin and body protection</b>	Wear protective gloves and protective clothing.
<b>Respiratory protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid
<b>Appearance</b>	Clear, colorless
<b>Odor</b>	Strong formaldehyde odor
<b>Odor threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting point / freezing point</b>	No information available
<b>Boiling point / boiling range</b>	96 C
<b>Flash point</b>	64 C
<b>Evaporation rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Flammability Limit in Air</b>	
<b>Upper flammability limit:</b>	70%
<b>Lower flammability limit:</b>	7%
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	No information available
<b>Relative density</b>	1.08 g/cm <sup>3</sup>
<b>Water solubility</b>	Miscible with water
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	300 C
<b>Decomposition temperature</b>	No information available
<b>Kinematic viscosity</b>	No information available

## 10. STABILITY AND REACTIVITY

**Stability** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions** None under normal processing.

**Conditions to avoid** Extremes of temperature and direct sunlight

**Incompatible materials** Strong oxidizing agents. Bases.

**Hazardous Decomposition Products** None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

<b>Inhalation</b>	No data available.
<b>Eye contact</b>	No data available.
<b>Skin contact</b>	No data available.
<b>Ingestion</b>	No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Formaldehyde 50-00-0	= 500 mg/kg ( Rat )	= 270 mg/kg ( Rabbit )	= 0.578 mg/L ( Rat ) 4 h
Methyl alcohol 67-56-1	= 5628 mg/kg ( Rat )	-	= 83.2 mg/L ( Rat ) 4 h

### Information on toxicological effects

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Skin corrosion/irritation</b>	Causes burns.
<b>Serious eye damage/eye irritation</b>	Risk of serious damage to eyes.
<b>Irritation</b>	Irritating to eyes, respiratory system and skin.
<b>Sensitization</b>	May cause sensitization by skin contact.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	The table below indicates whether each agency has listed any ingredient as a carcinogen

Chemical Name	ACGIH	IARC	NTP	OSHA
Formaldehyde 50-00-0	A2	Group 1	Known	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

<b>STOT - single exposure</b>	- Central nervous system - Respiratory system - Optic nerve
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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Formaldehyde 50-00-0	-	22.6 - 25.7: 96 h Pimephales promelas mg/L LC50 flow-through 1510: 96 h Lepomis macrochirus µg/L LC50 static 41: 96 h Brachydanio rerio mg/L LC50 static 0.032 - 0.226: 96 h Oncorhynchus mykiss mL/L LC50 flow-through 100 - 136: 96 h Oncorhynchus mykiss mg/L LC50 static 23.2 - 29.7: 96 h Pimephales promelas mg/L LC50 static	2: 48 h Daphnia magna mg/L LC50 11.3 - 18: 48 h Daphnia magna mg/L EC50 Static
Methyl alcohol 67-56-1	-	28200: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static 19500 - 20700: 96 h	-

		Oncorhynchus mykiss mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mL/L LC50 static 13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through	
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**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

Chemical Name	Partition coefficient
Formaldehyde 50-00-0	0.35
Methyl alcohol 67-56-1	-0.77

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**

Do not reuse container. Emptied containers may contain residue. Continue to follow label warnings after container is emptied.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Formaldehyde 50-00-0	U122	Included in waste streams: K009, K010, K038, K040, K156, K157	-	U122
Methyl alcohol 67-56-1	-	Included in waste stream: F039	-	U154

Chemical Name	California Hazardous Waste Status
Formaldehyde 50-00-0	Toxic Ignitable
Methyl alcohol 67-56-1	Toxic Ignitable

**14. TRANSPORT INFORMATION**

Transportation information is provided as a general reference only and may not be applicable in all situations. This information applies to non-bulk shipments only. Per 49 CFR 173.22, it is the shipper's responsibility to ensure that all materials are properly packaged, classified and labeled prior to shipment.

**DOT**

UN/ID no. 2209  
 Proper shipping name Formaldehyde solutions  
 Hazard Class 8  
 Packing Group III  
 Reportable Quantity (RQ) 270

**IATA**

UN/ID no. 2209  
 Proper shipping name Formaldehyde solutions  
 Hazard Class 8  
 Packing Group III

## 15. REGULATORY INFORMATION

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Formaldehyde - 50-00-0	0.1
Methyl alcohol - 67-56-1	1.0

#### SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

#### CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Formaldehyde 50-00-0	100 lb	-	-	X

#### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Formaldehyde 50-00-0	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ
Methyl alcohol 67-56-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

### US State Regulations

#### California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Formaldehyde - 50-00-0	Carcinogen
Methyl alcohol - 67-56-1	Developmental

#### U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Formaldehyde 50-00-0	X	X	X
Methyl alcohol 67-56-1	X	X	X

## 16. OTHER INFORMATION

#### Prepared By

EKI Regulatory Affairs  
Email: reg@eki-chem.com

#### Revision Date

14-Jun-2015

#### Disclaimer

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**End of Safety Data Sheet**